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the wood pavement by means of washing was tried ; the water was supplied by means of a stand-pipe and hose, connected with the West Middlesex water mains, and the liquified mud was brushed off into the sewers. If water could be procured at a cheap rate, there can be no doubt that this would be the most effectual mode of gaining so desirable an object.

No. XIII.

THOMPSON'S FIRE-ESCAPE.

January 17, 1844.

WILLIAM POLE, ESQ. F.R.S. V.P. IN THE CHAIR.

THIS contrivance consists of two ropes, each of sufficient length to reach from the street to the top windows of the loftiest houses. These ropes are joined together. An iron hook is secured to the ropes at the point of junction, and which is elevated to the window of the house from which the inmates are to be rescued, by means of a pole, consisting of several lengths put together, after the manner of a fishing-rod ; it is then to be secured, by means of the hook, to some heavy piece of furniture, the two other ends remaining in the street ; a belt to buckle round the body, having two small iron wheels, or sheaves, secured upon it by strong iron rivets, is so constructed that it may be moved upon the ropes from the street to the window, or *vice-versâ*, the ends of the rope being passed inside the sheaves, and pulled apart in the street, so as to form a considerable angle, and kept tight, and at such a distance as occasion may require ; thus persons may ascend and

descend readily, and without any danger of accident, owing to the operation being performed with too great rapidity, which has been a defect in other machines of the kind, with only a single rope.

In the year 1829 the Society presented to Mr. D. Davies their large silver medal for a somewhat similar contrivance (an account of which is published in their 47th vol.), by which, however, the descent only is provided for. An apparatus on Mr. Davies's plan may be seen in the Society's repository.

No. XIV.

ON THE HYGRO-BAROMETER.

By ANDREW ROSS.

January 24th, 1844.

DAVID POLLOCK, ESQ. F.R.S. V.P. IN THE CHAIR.

OF all the instruments employed in meteorological observations, the hygrometer and barometer are the most important; and as progress in the science of meteorology mainly depends on the accumulation of well-observed and well-registered facts, the hygro-barometer has been so arranged that the height of the barometric column and the depression of the dew-point may be registered from mere inspection, while these may be combined, as will hereafter be described, to exhibit in a popular manner the real state of the weather.

The three most remarkable fluctuations which occur in the atmosphere, are its temperature, its weight, and its dryness, and these are measured with the instruments which compose the hygro-barometer. The electrical state